

CLAIMS

What is claimed is:

1. A method of treating or preventing decreased nitric oxide formation resulting from sub-optimal urea cycle function in a subject, the method comprising administering to a subject in need thereof a therapeutically effective amount of a nitric oxide precursor, whereby treatment or prevention of decreased nitric oxide formation resulting from sub-optimal urea cycle function is accomplished.
2. The method of claim 1 wherein the administering is intravenously or orally.
3. The method of claim 1, wherein the sub-optimal urea cycle function further comprises decreased urea cycle intermediate production.
4. The method of claim 1, wherein the subject is suffering from a disorder associated with decreased urea cycle intermediate production or wherein the subject is exposed or about to be exposed to an environmental stimulus associated with decreased urea cycle intermediate production.
5. The method of claim 4, wherein the disorder is selected from the group consisting of hepatitis, cirrhosis, pulmonary hypertension, necrotizing enterocolitis (NEC), Acute Respiratory Distress Syndrome, ethnic specific endothelial dysfunction, erectile dysfunction, bone marrow transplant toxicity in a subject undergoing bone marrow transplant, sepsis, asthma, and combinations thereof.
6. The method of claim 4, wherein the environmental stimulus is selected from the group consisting of chemotherapy, cardiac surgery, increased oxidative stress, bone marrow transplant, septic shock, acute asthma attack, hypoxia, hepatotoxin exposure and combinations thereof.
7. The method of claim 1, wherein the nitric oxide precursor is selected from the group consisting of citrulline, arginine and combinations thereof.
8. The method of claim 1, wherein the nitric oxide precursor is administered in a dose ranging from about 100 mg to about 30,000 mg.

9. The method of claim 8, wherein the nitric oxide precursor is administered in a dose ranging from about 250 mg to about 1,000 mg.
10. The method of claim 1, wherein the subject is a human.
- 5 11. A method of treating or preventing bone marrow transplant toxicity in a subject undergoing bone marrow transplant, the method comprising intravenously or orally administering to the subject a therapeutically effective amount of a nitric oxide precursor, whereby bone marrow transplant toxicity is treated or prevented in the subject.
- 10 12. The method of claim 11, wherein the administering is intravenously or orally.
13. The method of claim 11, wherein the nitric oxide precursor is selected from the group consisting of citrulline, arginine and combinations thereof.
14. The method of claim 11, wherein the nitric oxide precursor is administered in a dose ranging from about 100 mg to about 30,000 mg.
- 15 15. The method of claim 14, wherein the nitric oxide precursor is administered in a dose ranging from about 250 mg to about 1,000 mg.
16. The method of claim 11, wherein the bone marrow transplant toxicity comprises hepatic veno-occlusive disease and/or acute lung injury.
17. The method of claim 11, wherein the subject is a human.
- 20 18. A method of treating or preventing a disorder selected from the group consisting hepatitis, cirrhosis, pulmonary hypertension, necrotizing enterocolitis (NEC), Acute Respiratory Distress Syndrome, ethnic specific endothelial dysfunction, erectile dysfunction, asthma, and combinations thereof in a subject, the method comprising administering to a subject in need thereof a therapeutically effective amount of a nitric oxide precursor.
- 25 19. The method of claim 18, wherein the administering is intravenously or orally.
20. The method of claim 18, wherein the nitric oxide precursor is selected from the group consisting of citrulline, arginine and combinations thereof.
- 30 21. The method of claim 18, wherein the nitric oxide precursor is administered in a dose ranging from about 100 mg to about 30,000 mg.

22. The method of claim 21, wherein the nitric oxide precursor is administered in a dose ranging from about 250 mg to about 1,000 mg.
23. The method of claim 18, wherein the subject is a human.
24. The method of claim 18, wherein the disorder is necrotizing enterocolitis (NEC) and the subject is a premature infant.
25. A method of raising a level of a nitric acid precursor in a subject in need thereof, the method comprising administering to the subject a therapeutically effective amount of a nitric oxide precursor, whereby a level of a nitric oxide precursor in the subject is raised.
26. The method of claim 25, wherein the administering is intravenously or orally.
27. The method of claim 25, wherein the nitric oxide precursor is selected from the group consisting of citrulline, arginine and combinations thereof.
28. The method of claim 25, wherein the nitric oxide precursor is administered in a dose ranging from about 100 mg to about 30,000 mg.
29. The method of claim 28, wherein the nitric oxide precursor is administered in a dose ranging from about 250 mg to about 1,000 mg.
30. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a nitric oxide precursor, wherein the pharmaceutical composition is adapted for intravenous or oral administration
31. The pharmaceutical composition of claim 30, wherein the nitric oxide precursor is selected from the group consisting of citrulline, arginine and combinations thereof.
32. The pharmaceutical composition of claim 30, wherein the nitric oxide precursor is present in a dose ranging from about 100 mg to about 30,000 mg.
33. The pharmaceutical composition of claim 32, wherein the nitric oxide precursor is administered in a dose ranging from about 250 mg to about 1,000 mg.